

REMARKS

Claims 1, 13, 14, 16, 17 and 19-29 are pending in this application. By this Amendment, claims 1, 13, 16, 19, 21, 23, 24 and 26-29 are amended.

The Office Action rejects claims 1 and 28 under 35 U.S.C. 101 as allegedly lacking a useful and tangible result commensurate with the claim language. The Office Action rejects claims 1 and 28 under 35 U.S.C. 112, second paragraph, for similar reasons. By this Amendment, claims 1 and 28 are amended to recite the step of transmitting a transmit signal. Accordingly, it is believed that these rejections should be withdrawn.

The Office Action rejects claim 13 under 35 U.S.C. 112, second paragraph. The wording identified by the Examiner has been remedied by the amendments herein.

The Office Action rejects claims 1, 13, 14, 16, 17 and 19-29 under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent No. 4,972,431 to Keegan ("Keegan").

The noted portions of Keegan at column 1, lines 65 to column 2, lines 4; column 2, lines 14-26; and column 4, lines 43-68, of Keegan describe basic global positioning system (GPS) operation. In Keegan, the basic PN code is encrypted by further modulating it with a cryptographic sequence, thereby changing the sequence of ones and minus ones in the final code that modulates the carrier. This provides additional security, in that a receiver needs to know the cryptographic sequence in order to demodulate the signal, but it does not provide any processing gain. Thus, the method described by Keegan results in a new (encrypted) chip sequence with no variation in transmit signal power level.

By contrast, in accordance with the present invention and as now reflected in the claims, the power level of the transmit signal is actually increased for short bursts that are separated by time intervals determined according to a cryptographic sequence. The time intervals are used to represent synchronization information for the transmit signal. It does, as a secondary effect, increase security, but more importantly this technique improves processing gain for the signal acquisition process. The chip sequence of the

basic code is not modified with the technique of the present invention, whereas the basic code is modified in Keegan. Thus, contrary to the position taken in the Office Action, encrypting the PN code as described in Keegan is not the same as amplifying select bursts of a transmit signal, wherein the bursts are timed based on a cryptographic sequence.

For these reasons, it is respectfully submitted that claims 1, 13, 14, 16, 17 and 19-29 are in condition for allowance. The Examiner is cordially invited to telephone the undersigned in the event there are any further questions or comments.

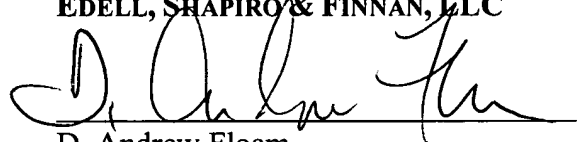
Applicant hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee for such extension is to be charged to Deposit Account No. 05-0460.

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